Dental Suturing Materials and Techniques

Successful dental suturing or oral surgery is dependent on accurate coaptation of the flaps. Various methods and materials have been used (sutures, stents, paste dressings, tissue tacks and adhesives) for precise flap placement. Suturing has remained the most popular method.

The term “suture” describes any strand of material utilized to ligate blood vessels or approximate tissues.

The primary objective of dental suturing is to position and secure surgical flaps in order to promote optimal healing (first / primary intention) provides support for tissue margin until they heal, without dead space and reduce postoperative pain.

Inadequate suturing may result in flap skipping, exposed bone / necrosis, pain and delayed wound healing.

A variety of suture materials and suture/needle combinations are available. The choice of suture for a particular procedure is based on the known physical and biologic characteristics of the suture material and the healing properties of the sutured tissues.

The selection of suture material is based on:

The condition of the wound, the tissues to be repaired, the tensile strength of the suture material, knot-holding characteristics of the suture material, and the reaction of surrounding tissues to the suture materials.

Knowledge of the suture, needles (type, size, shape), instruments, and techniques are absolutely necessary in order to be a competent surgeon.

There is no suture superior to the others in each aspect.

The differences in terms of tissue reaction and bacterial adhesion between sutures should be always considered in the selection of the appropriate suturing material.

Delicate and proper soft tissue handling during various suturing techniques can insure optimal tissue healing and high esthetic result.